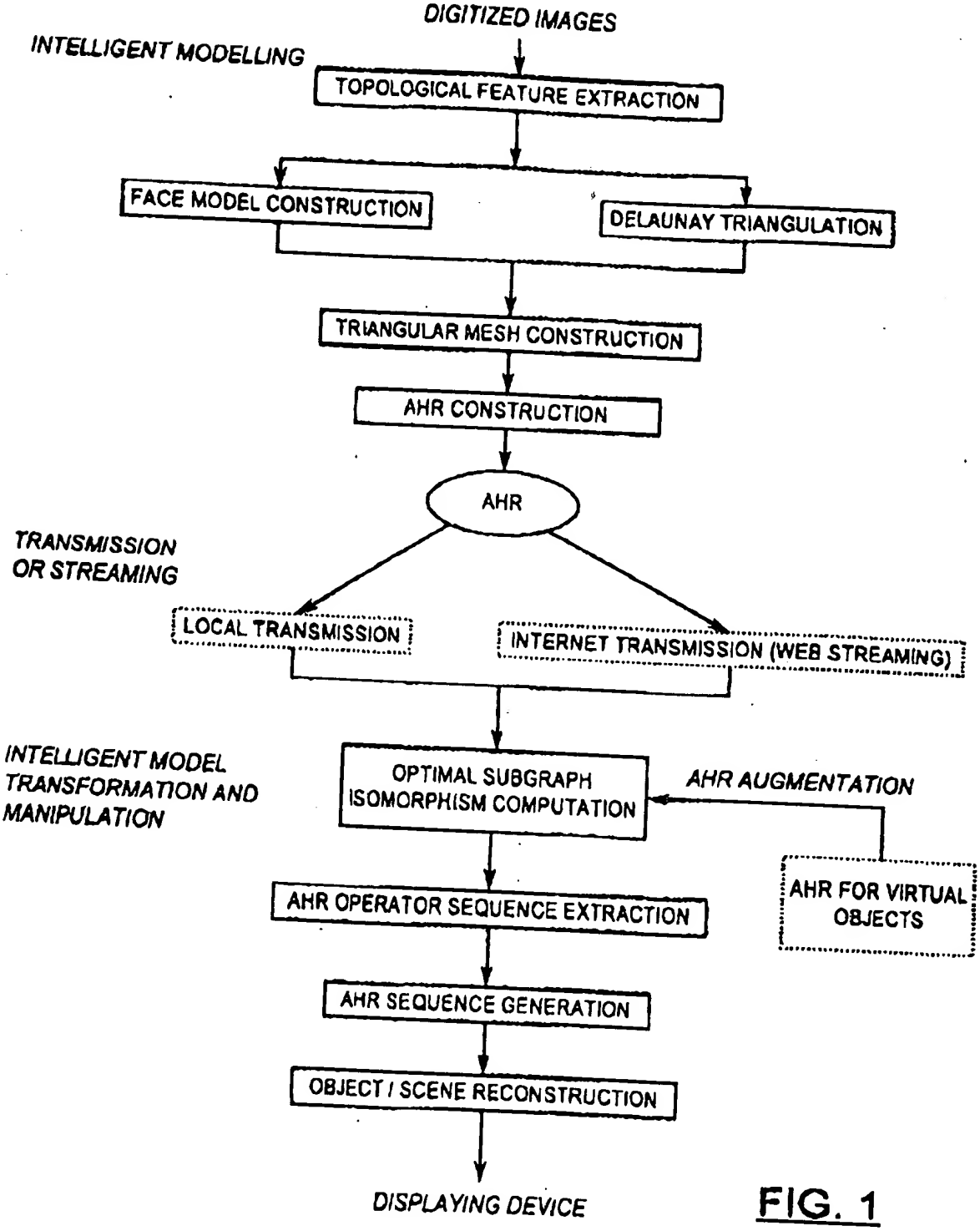


FIG. 1

09/25/2000 17:30 [illegible]

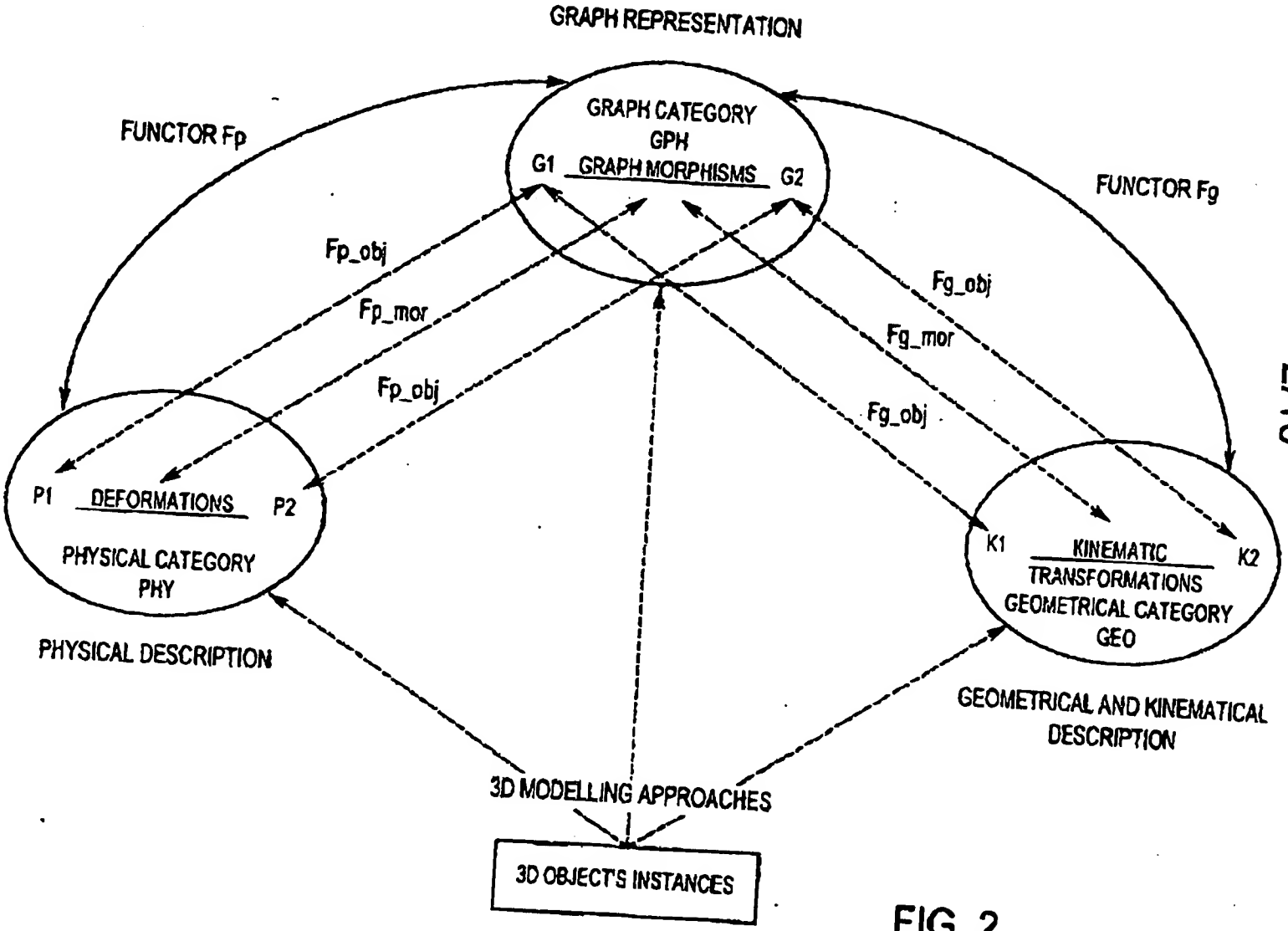

GRAPH REPRESENTATION
GRAPH CATEGORY
GPH
G1 GRAPH MORPHISMS G2
FUNCTOR Fp
FUNCTOR Fg
Fp_obj
Fp_mor
Fp_obj
Fg_obj
Fg_mor
Fg_obj
P1 DEFORMATIONS P2
PHYSICAL CATEGORY
PHY
PHYSICAL DESCRIPTION
K1 KINEMATIC K2
TRANSFORMATIONS
GEOMETRICAL CATEGORY
GEO
GEOMETRICAL AND KINEMATICAL
DESCRIPTION
3D MODELLING APPROACHES
3D OBJECT'S INSTANCES

FIG. 2

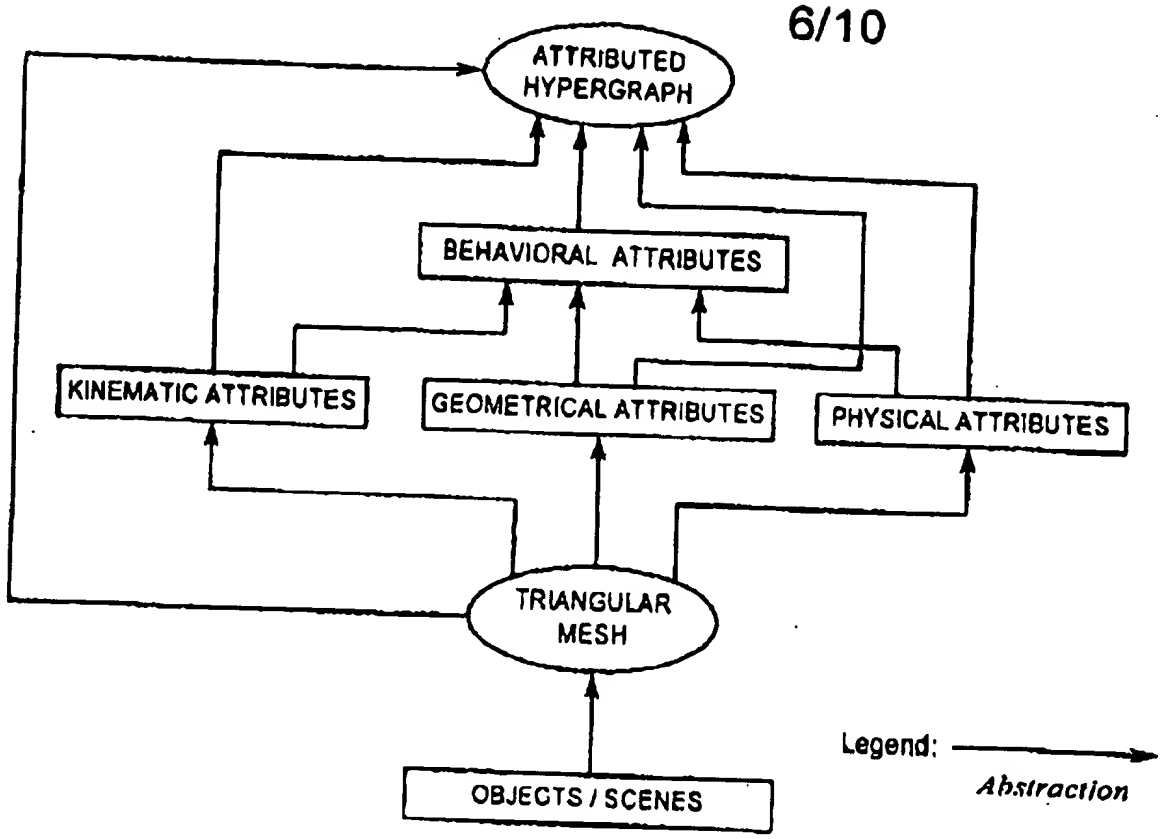

ATTRIBUTED HYPERGRAPH
BEHAVIORAL ATTRIBUTES
KINEMATIC ATTRIBUTES
GEOMETRICAL ATTRIBUTES
PHYSICAL ATTRIBUTES
TRIANGULAR MESH
OBJECTS / SCENES
Legend:
Abstraction

FIG. 7

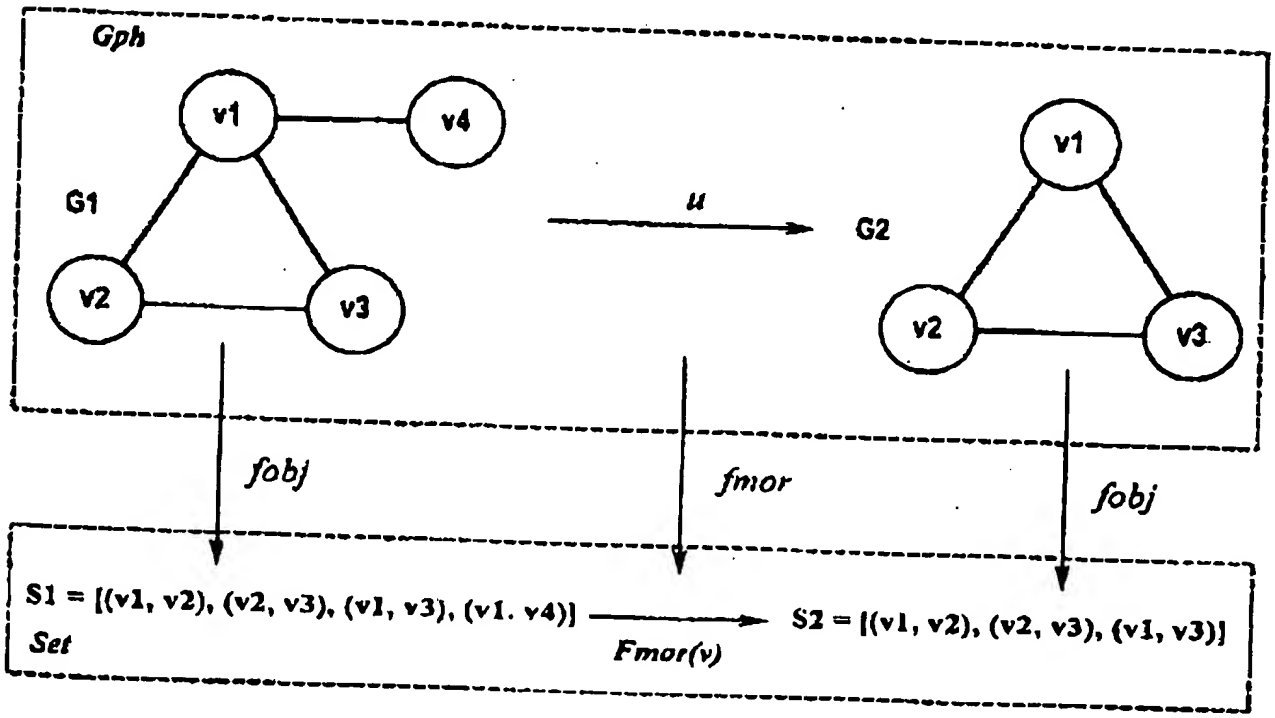

Gph
v1
v4
G1
v2
v3
u
G2
v1
v2
v3
fobj
fmor
fobj
S1 = [(v1, v2), (v2, v3), (v1, v3), (v1. v4)]
Set
Fmor(v)
S2 = [(v1, v2), (v2, v3), (v1, v3)]

FIG. 3

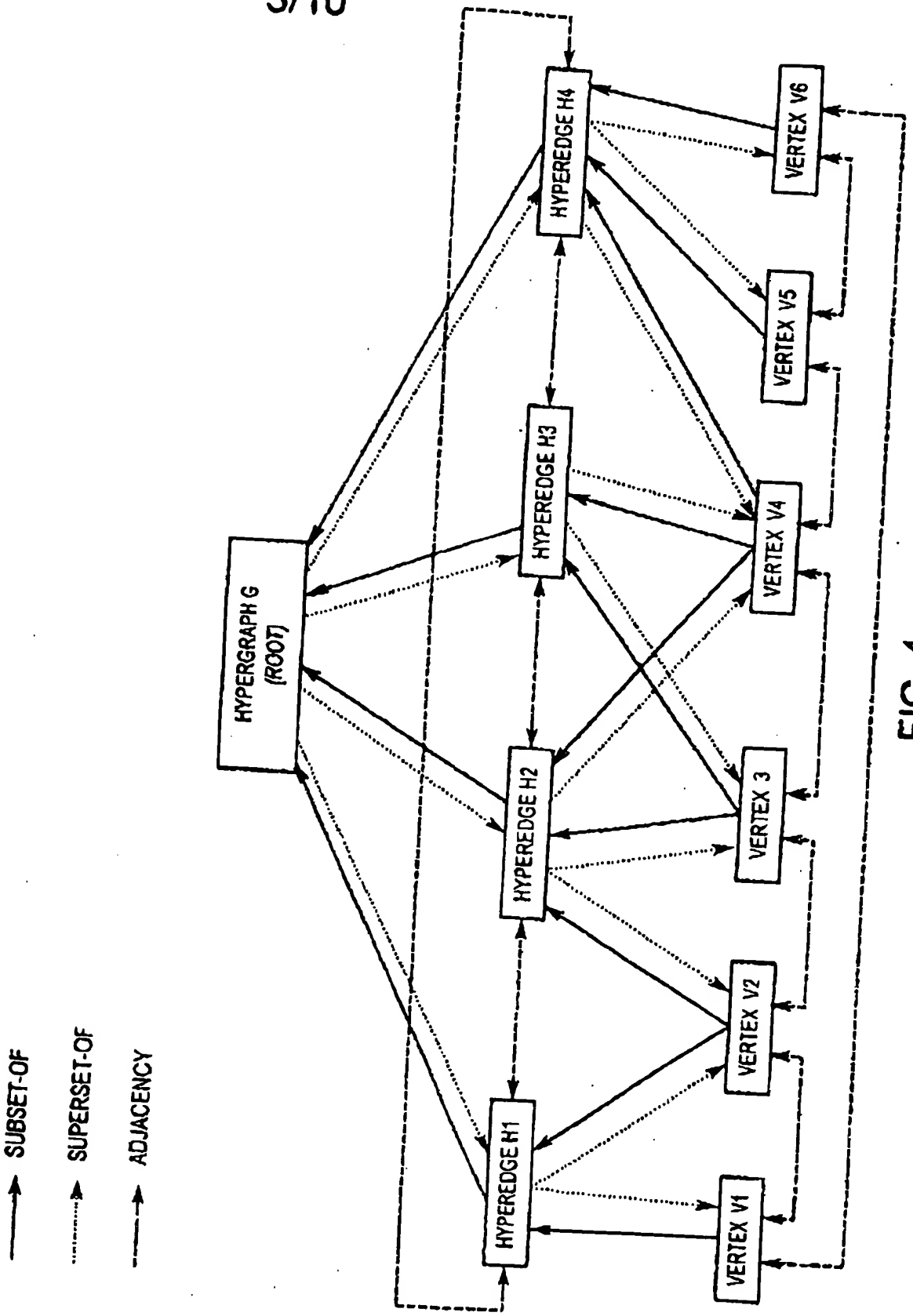

HYPERGRAPH G
(ROOT)
HYPEREDGE H4
HYPEREDGE H3
HYPEREDGE H2
HYPEREDGE H1
VERTEX V6
VERTEX V5
VERTEX V4
VERTEX 3
VERTEX V2
VERTEX V1
SUBSET-OF
SUPERSET-OF
ADJACENCY

FIG. 4

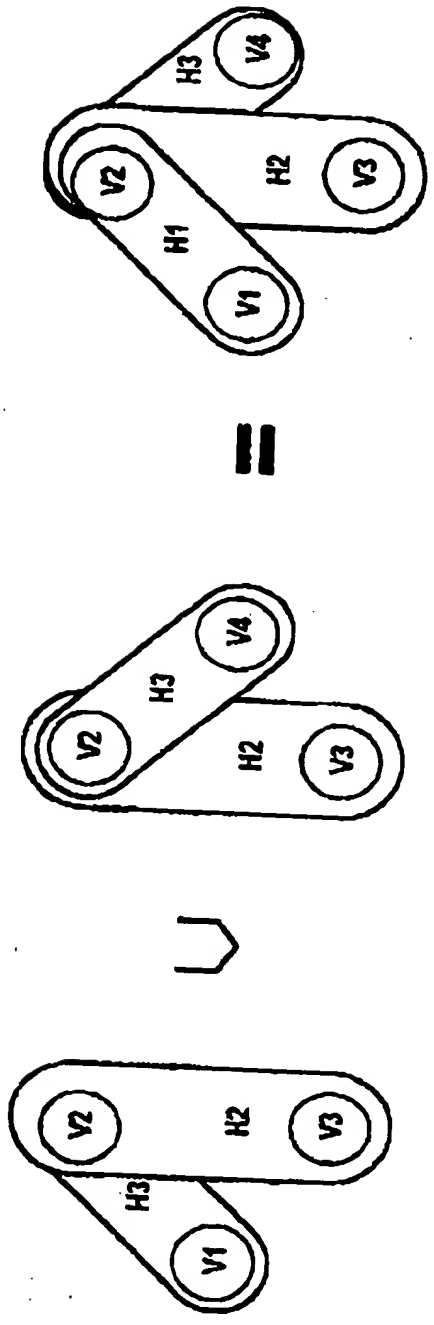


FIG. 5a

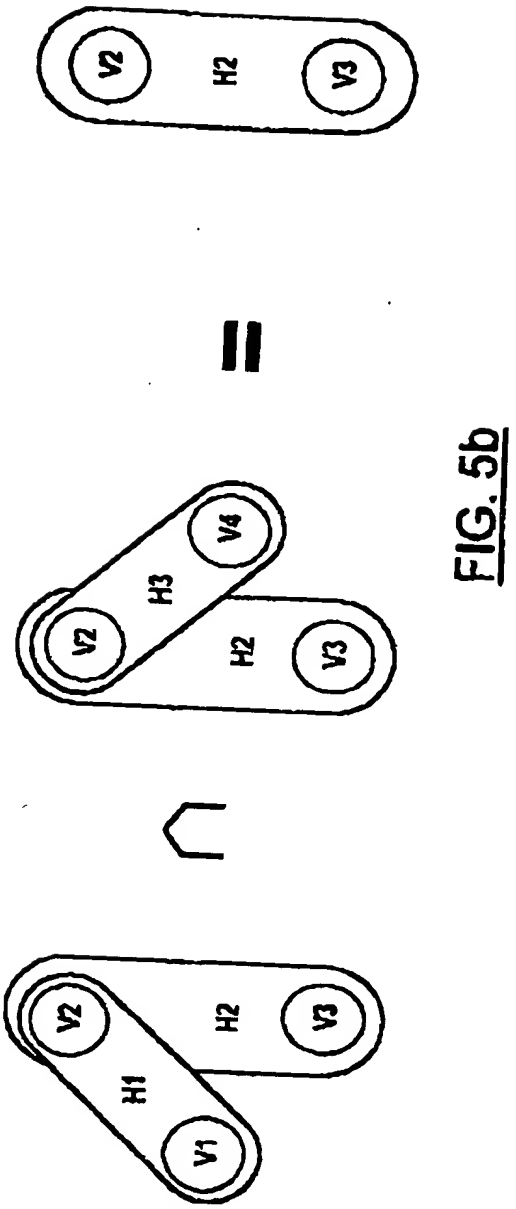


FIG. 5b

DOCKET 6265/360

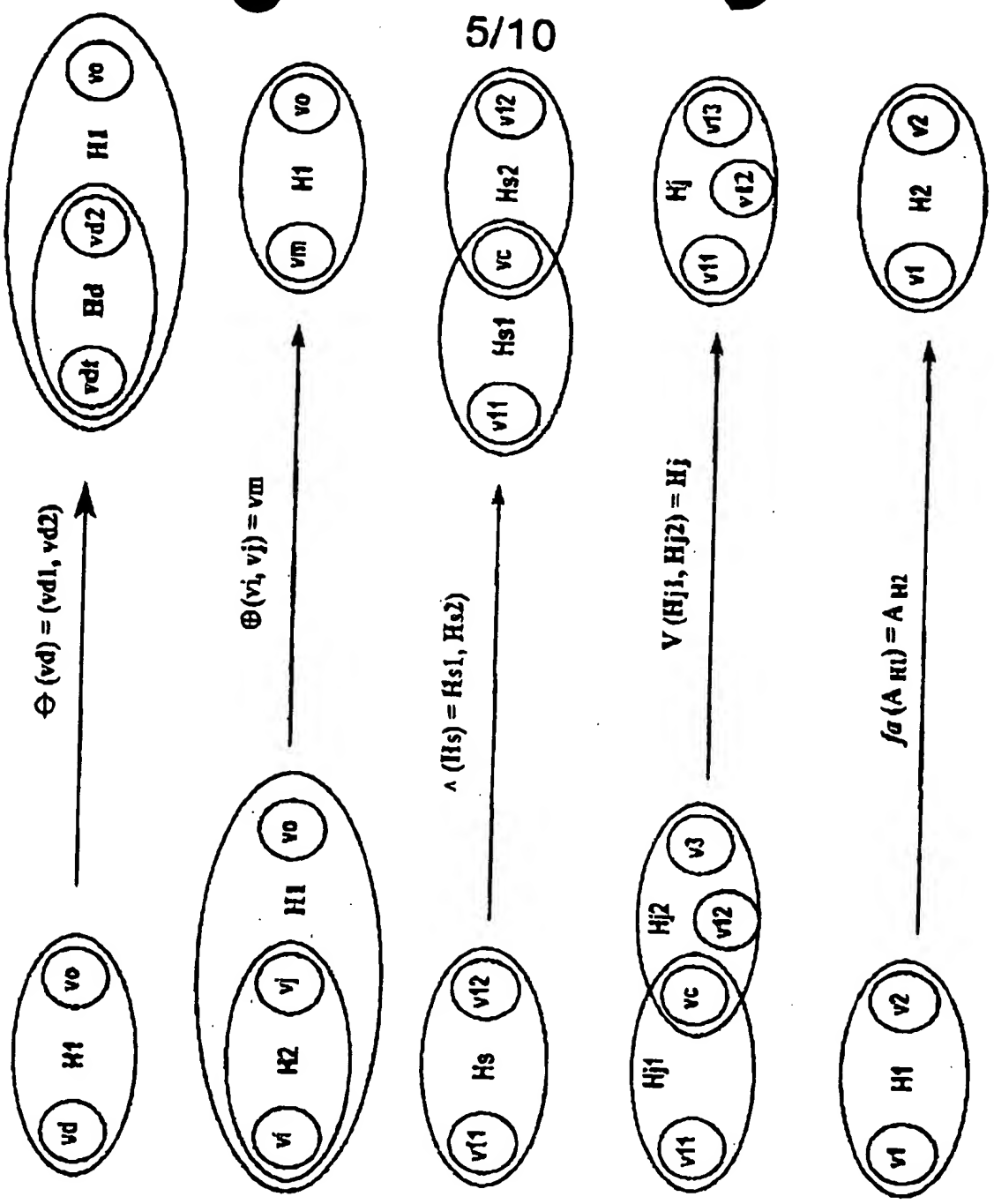


FIG. 6(a)

FIG. 6(b)

FIG. 6(c)

FIG. 6(d)

FIG. 6(e)

DOCKET 626520450

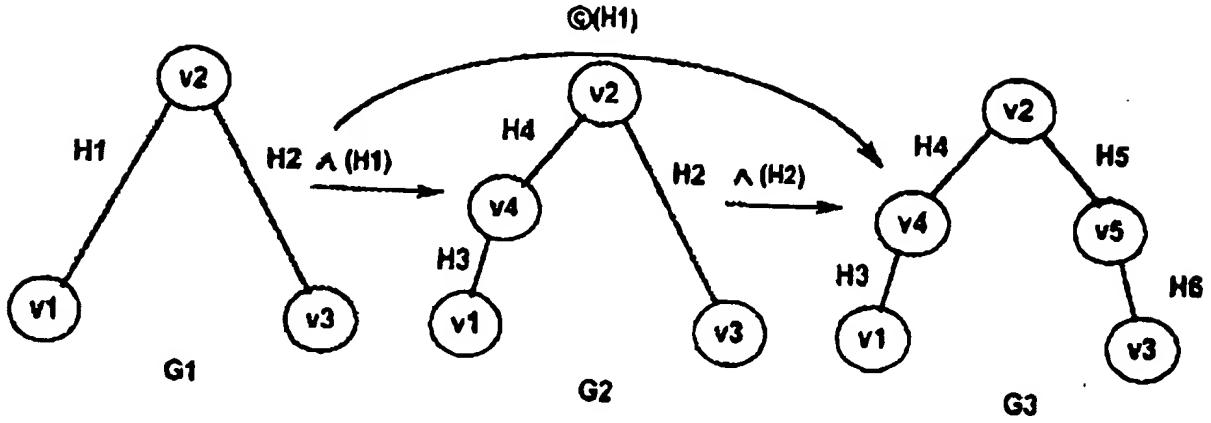
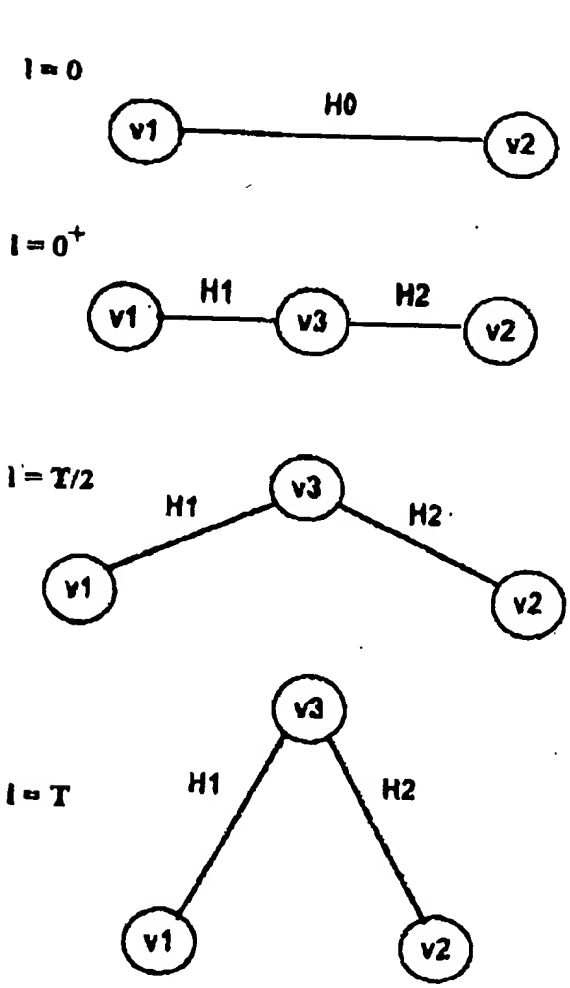
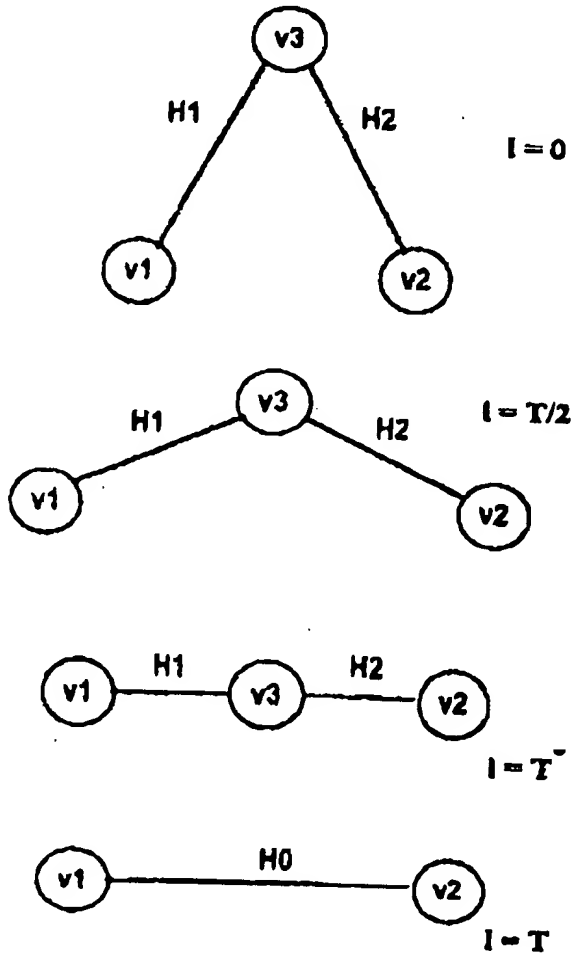


FIG. 8



(H1, H2) = sub(H0)

FIG. 9(a)



H0 = join(H1, H2)

FIG. 9(b)

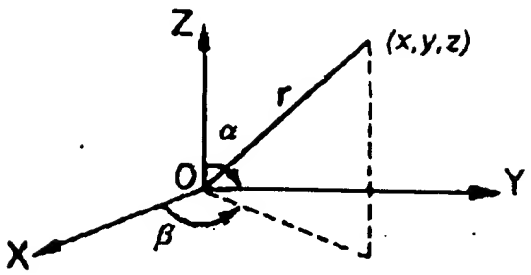


FIG. 10

D02550 - 24000

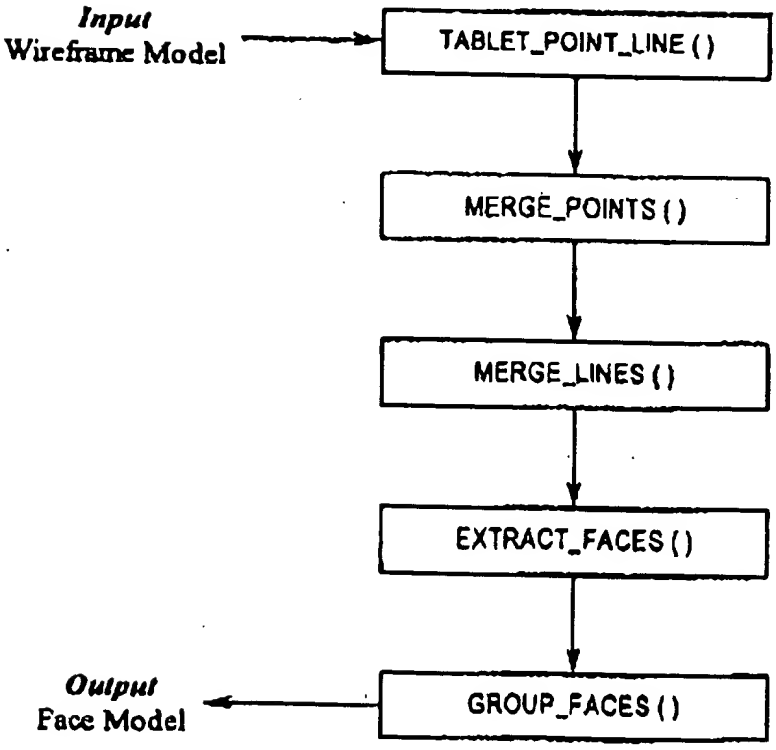


FIG. 11

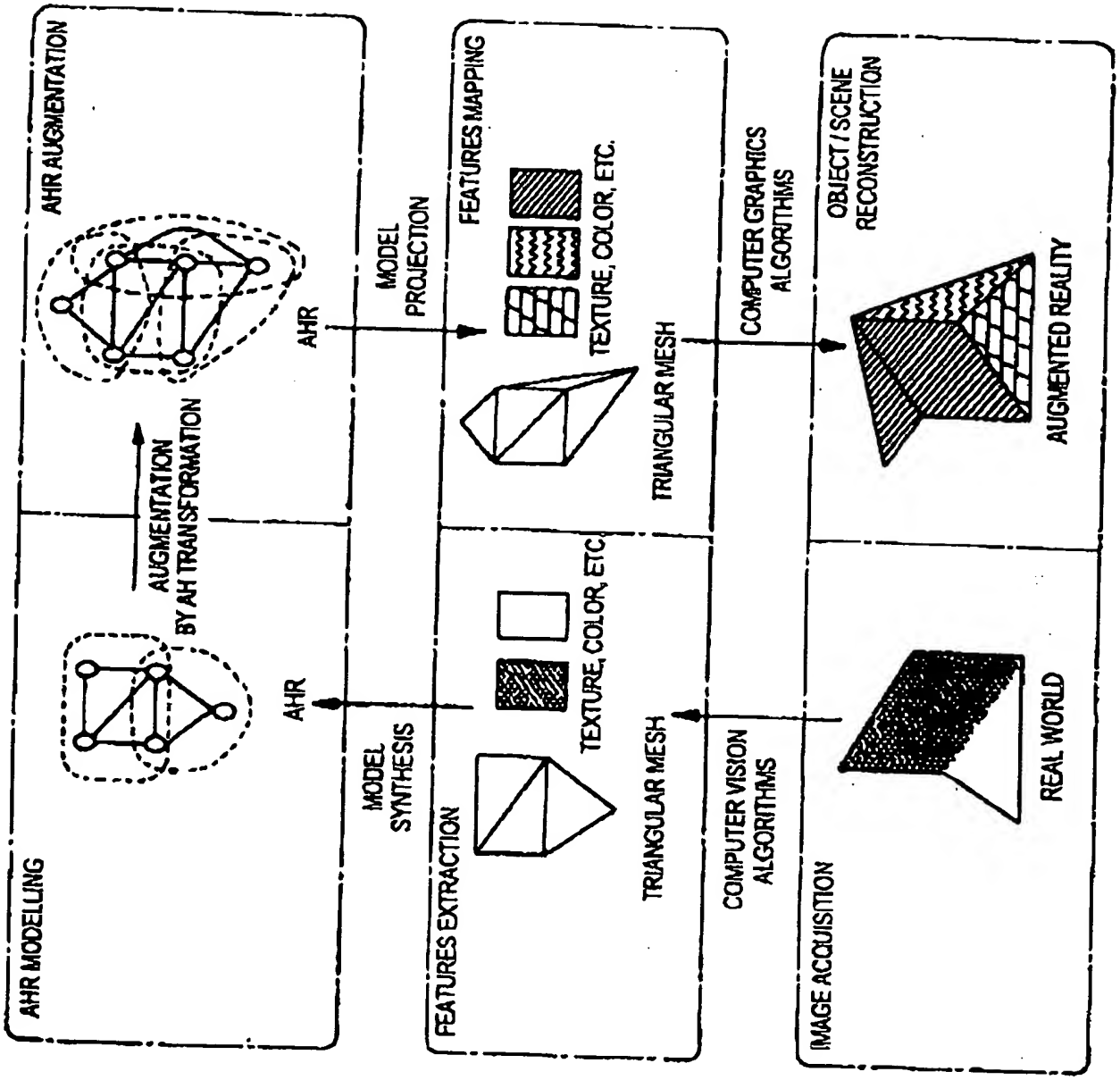


FIG. 12

DOCKET # 23245.0

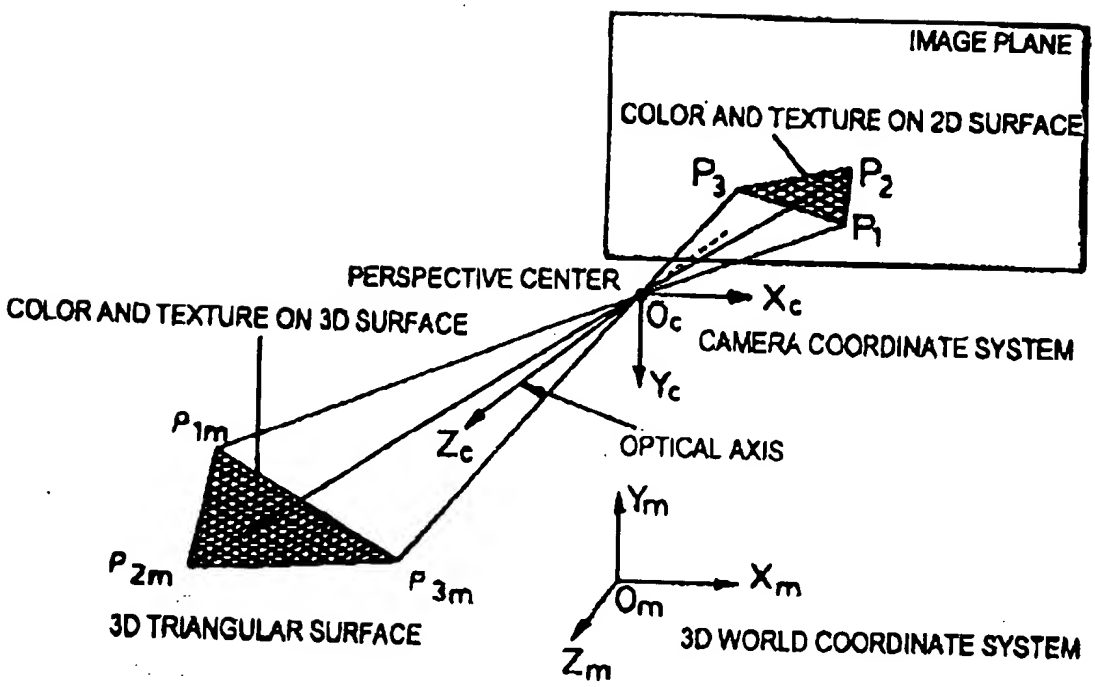


FIG. 13

09674252.1 - 09674252